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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CLARK, GREGORY D

ART UNIT

PAPER NUMBER

1786

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,850	Applicant(s) ASBURY ET AL.	
	Examiner GREGORY CLARK	Art Unit 1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 9-14, 18, 19 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14, 18, 19, 22, 23, 25, 26, 28 and 29 is/are allowed.
- 6) ☒ Claim(s) 1-3, 24 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner acknowledges the receipt of applicants' amended claims and arguments dated 05/02/2011.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

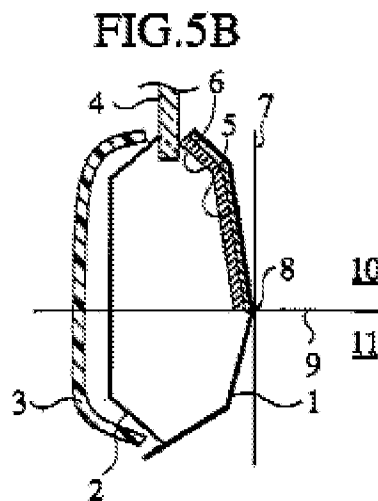
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-3 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (2004/0124668) in view of Tusim (WO99/61283).**
2. **Regarding Claims 1, 3 and 24,** the applicant claims a interior vehicle roof panel having a non-flat contour that includes:
 - first polymer material having heat absorbing properties
 - second polymer (bonded to the first polymer) having heat reflecting properties
said metalized second polymer is heat formable
 - metalized layer is formed to define a non-flat topography.
 - With respect to claims 1, 3 and 24 no roof is required, all that is needed is the claimed 3 layer structure having a contour.

Ogawa discloses a vehicle panel structure which includes an outer panel, an inner panel facing the outer panel, and a trim of a cabin interior (headliner). At least one surface of a back surface of the outer panel functions as a heat insulation and heat dissipation section to insulate heat for the surface (abstract).

Ogawa discloses that the insulation/ reflection construction can be polyethylene terephthalate (PET) (corresponding to applicants' polymer 1) with an aluminum layer (corresponding to applicants' polymer 2, per claims 3 and 24 [metalized]) deposited there on attached by an epoxy resin adhesive (paragraph 83).

Figure 5B (sheet 4 of 9) shows that the insulating (absorption) material 6 (corresponding to applicants' polymer 1) is attached to the heat reflection layer 5 (corresponding to applicants' polymer 2)



Ogawa further discloses the heat insulating materials can be applied in a host of areas of the vehicles which include: a door trim, a door inner panel, a head lining

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(claimed by applicant), a pillar garnish, a door damp proof sheet, and the like (paragraph 46).

Ogawa fails to disclose a core layer between layer 5 and layer 6.

Tusim discloses a headliner composed of a core layer and one or more adjacent layers (abstract).

The examiner interprets this to be inclusive of a three layer construction with the core layer being in the middle as claimed by applicant.

Tusim further mentions that a headliner containing a core layer has several advantages such as the following: the headliner is readily thermoformable to a desired shape, configuration, or contour; the headliner is rigid enough to prevent sagging and substantially maintain its shape-even when exposed to elevated temperatures (page 3, lines 9-15). Tusim discloses that the core layer is typically a foam material (abstract) which includes polypropylene or PET (page 12, lines 33-34).

The examiner notes the applicants' specification mentions polypropylene foam as a core material (page 2, paragraph 8).

As Tusim teaches numerous advantages to having a foam core layer present in a headliner, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the headliner of Ogawa which would have included adding a core layer between layers 5 and 6 (which reads on the instant limitations) in order to product a headliner with the advantages mentioned above, absent unexpected results.

Ogawa fails to mention the attachment of the heat insulation layer (PET) and the heat reflection layer (deposited aluminum) without the use of an adhesive.

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Tusim teaches that an adjacent layer can be bonded to the core layer (foam) by any means known in the art such as thermal welding or adhesives (page 12, lines 21-23). The thermal welding occurs by heating the layer without the use of an adhesive (page 12, lines 23-24).

It would have been obvious to a person of ordinary skill in art at the time of the invention to have selected from known methods to adhere an adjacent layer which would have included the thermal welding which avoids the need for an adhesive layer.

A headliner for trimming a passenger compartment of a vehicle roof is regarded as an intended use where the headliner requires a three layer construction and the vehicle roof is not a part of the headliner construction.

3. **Regarding Claims 2**, Ogawa in view of Tusim teach the invention of claim 1.

Tusim teaches that thermal welding occurs by heating the layer without the use of an adhesive (page 12, lines 23-24). The process involves heating a layer until it becomes tacky or sticky and able to adhere to the core layer (pages 5, lines 26-28).

4. **Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (2004/0124668) in view of Tusim (WO99/61283) and Sandoe (US2001/0036788).**

5. **Regarding Claim 27**, Ogawa in view of Tusim teach the invention of claim 1.

Ogawa teaches the second polymer layer comprising PET (polyester) but fails to

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mention the use of a fabric (fibrous material) as the second layer. The second polymer layer is bonded to the core layer as discussed above.

Sandoe discloses a headliner made from a laminate comprising a core layer sandwiched between two stiffening layers (abstract). The stiffening layers can be composed of thermoplastic fibers such as polyester (paragraph 12).

The outer stiffening layer of Sandoe is viewed as equivalent to the second polymer layer of Ogawa which also comprises polyester since both layer are bonded a headliner core layer.

As Sandoe and Ogawa in view of Tusim both teach headliners with a polyester containing layer bonded to a core layer, it would have been obvious to one of ordinary skill in the art at the time of the invention to have known types of polyester film which would have included fibrous film (fabric) as taught by Sandoe which reads on the instant limitations, absent unexpected results.

Allowable Subject Matter

6. A search of the prior art did not show the claimed assembly of a vehicle roof or vehicle roof construction. The closest prior art appears to be Ogawa in view of Tusim who teaches a three layer construction. The multilayer construction of Ogawa would be obvious to modify by adding a core layer as discussed above, but it does not appear obvious to reverse the order of attachment of the insulating layer being in contact with the vehicle roof.

7. Claims 9-14, 18-19, 22-23, 25-26 and 28-29 allowed.

Response to Amendment

Applicants' arguments relative to claims 1, 3 and 24 are moot based on the examiner interpretation of said claims to be based on an intended use.

A headliner for trimming a passenger compartment of a vehicle roof is regarded as an intended use where the headliner requires a three layer construction and the vehicle roof is not a part of the headliner construction. As an intended use, the headliner construction can be applied to a vehicle roof from the insulating layer side or the heat reflection layer.

Applicants' arguments relative to claims 9-14, 18-19, 22-23, 25-26 and 28-29 were persuasive as these claims require the vehicle roof to be part of the article as opposed to a three layered article intended for use on a vehicle roof.

Claims 16 and 17 were not rejoined because the claims are not commensurate in scope an article which requires the vehicle roof but the claims are based on intended use. As mentioned above, a three layered article which reads on applicants' claimed layers is deemed to meet the claim limitations without a vehicle roof being present as the three layered article could be applied to a vehicle roof from the insulating layer side or the heat reflection layer.

The method claims can be rejoined if applicant amends the claims to be commensurate in scope with the vehicle roof being a part of the article as opposed to intended use.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY CLARK whose telephone number is (571)270-7087. The examiner can normally be reached on M-Th 7:00 AM to 5 PM Alternating Fri 7:30 AM to 4 PM and Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Chriss can be reached on (571) 272-7783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1781

GREGORY CLARK /GDC/
Examiner
Art Unit 1786